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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,483	04/01/2004	Stephen M. Trimberger	X-940-1P-1P-2P US	8508

24309 7590 09/18/2006

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EXAMINER

KIK, PHALLAKA

ART UNIT PAPER NUMBER

2825

DATE MAILED: 09/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/815,483	TRIMBERGER ET AL.	
	Examiner	Art Unit	
	Phallaka Kik	2825	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/1/04, 11/14/05, 6/30/06, 8/18/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) 7-19 and 31-45 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 20-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/1/04, 11/14/05, 8/18/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action responds to the Application filed on 4/1/2004, IDS filed on 4/1/2004, 11/14/2005 and 8/18/2006, Election/Restriction filed on 6/30/2006. Claims 1-45 are pending, wherein claims 7-19,31-45 are withdrawn from consideration as being directed to inventions non-elected with traverse.

Election/Restrictions

2. Applicant's election of group I invention, claims 1-6,20-30 in the reply filed on 6/30/2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

3. **Claims 7-19,31-45** are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 6/30/2006.

4. Applicant is again reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Objections

5. **Claims 3,22** are objected to because of the following informalities:

--further-- should be inserted before "includes" (line 2) to define the further limitations of the claims.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. **Claims 1,4-6,20,23-30** are rejected under 35 U.S.C. 102(b) as being anticipated by **Parlour et al.** (U.S. Patent No. 5,349,248).

As per **claims 1,4-6,27-30**, all of the elements of the claims are summarized in col. 3, line 43 to col. 4, line 22, wherein the collection of signal paths and/or logic blocks identified corresponds to the initial routing produced, which then undergoes instantiating (i.e., programmed) and testing to identify failed signal path (i.e., defective antifuse), and wherein the adaptive routing software correlates the failed signal paths with the alternative signal path, for which the alternative routes would undergo instantiation (i.e., programming) and testing; wherein the auxiliary resources are part of the unused wiring segments and antifuses as well as the alternative set of routes to be calculated or send to the customer, wherein the rejected devices are described in col. 7, lines 10-30; and wherein the logic blocks are part of the elements of the FPGA, as is known in the art.

As per **claims 20,23-26**, all of the elements of the claims are discussed in the rejections of claims 1,4-6 above, wherein the interconnect resources having minimum feature size of at most ten nanometers, including the percentage thereof is less than

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10% of the second minimum feature size, is within the scope of **Parlour et al.** since **Parlour et al.** covers all types of feature size (see col. 3, lines 20-40).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 2-3,21-22** are rejected under 35 U.S.C. 103(a) as being obvious over **Parlour et al.** (U.S. Patent No. 5,349,248) in view of **Wells et al.** (U.S. Patent Application Publication No. 2004/0216081).

The applied reference has a common assignee and inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the

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application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

As per **claims 2-3,21-22, Parlour et al.** teach all of the elements of claims 1 and 20, from which the respective claims depend as discussed above. However, **Parlour et al.** failed to particular teach the configuring the logic blocks as the test signal generator and the test signal observer, as claimed. **Wells et al.** teach the use of the test signal generator and the test signal observer being configured as part of the logic blocks, in order to quickly test the instantiated/programmed circuits (see paragraphs [0051]-[0057]). It would have been obvious to one of ordinary skilled in the art at the time of the invention to further incorporate the testing signal generator and test signal observer as taught by **Wells et al.** into the method/system of **Parlour et al.** because such incorporation would further allow the instantiated circuits of **Parlour et al.** to be tested quickly and efficiently.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Therefore, Applicant is requested herein to consider them carefully in response to this Office Action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phallaka Kik whose telephone number is 571-272-1895. The examiner can normally be reached on Monday-Thursday, 8:30AM-7PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Chiang can be reached on 571-272-7483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any response to this action should be mailed to:

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

or faxed to:

571-273-8300



Phallaka Kik
Primary Examiner
September 2, 2006